

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

Further, Applicants' attorney appreciates the Examiner's acknowledgement of the allowability and allowance of various claims.

Claims 1, 2, 6, 9, 12, 13 and 16 have been amended. Claim 5 has been cancelled. Support for the percent identity amendment to claim 1 may be found, for example, on page 30, lines 13-14 of the specification. Further, support for the percent identity amendment to claim 2 may be found, for example, on page 10, lines 20-21 of the specification.

In response to the objection to the specification, the website has been removed. Thus, it is respectfully requested that the objection be withdrawn.

Further, in response to the objections to claims 9, 12 and 16 relating to informalities, it is submitted that the claims have been amended in order to adequately address the Examiner's concerns. Thus, it is respectfully requested that the objections be withdrawn.

Rejection of Claims 1, 2, 5 and 9 Under 35 U.S.C. 112, First Paragraph

The Examiner has rejected claims 1, 2, 5 and 9 under Section 112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

In particular, the Examiner alleges that none of claims 1, 2, 8 or 9 require any particular function or activity of a "polypeptide" encoded by the polynucleotide of claims 1 and 2 and members of the genera of polynucleotides of claims 1 and 2 need not be related to the nucleic acid sequence of SEQ ID NO:8. The Examiner further contends that claims 5-7 do not require that the members of the genera of polynucleotides be related to the nucleic acid sequence of SEQ ID NO:8.

In response, the Applicants submit that the Examiner's concerns giving rise to the rejection have been adequately addressed by the amendments shown above. Thus, it is respectfully requested that the rejection has been overcome and should be withdrawn.

Rejection of Claims 1, 2, and 5-9 Under 35 U.S.C. 112, First Paragraph

The Examiner has rejected claims 1, 2 and 5-9 under Section 112, first paragraph. In particular, the Examiner contends that the specification, while being enabling for the preparation of polynucleotides that will hybridize to SEQ ID NO:8 under the conditions described in pages 49 and 50 of the specification and that encode a polyunsaturated fatty acid polyketide synthase, does not reasonably provide enablement for the preparation of polynucleotides that encode a polypeptide 65% identical to SEQ ID NO:10 or that is 70% identical to SEQ ID NO:8 and encode a polypeptide with no particular function.

In response, Applicants submit that the above amendments to the claims adequately address the Examiner's concerns giving rise to the rejection. In particular, it is submitted that the claims have been amended to recite a percent identity limitation of at least 95% (in connection with claim 1) and at least 90% (in connection with claim 2) in view of the apparent USPTO policy exercised within approximately the last five years (and espoused by the Examiners) to the effect that the USPTO will not allow a percent identity recitation less than approximately 90-95% in connection with nucleotide and amino acid sequence identities recited in claims unless several, other related sequences are presented in the specification and one can state with certainty which nucleotide or amino acid changes elicit functional changes within the gene or encoded protein. Should this policy no longer be in force, the Examiner is respectfully requested to consider percent identity limitations below those recited in claims 1 and 2 which are supported by the specification (particularly in view of the deletion of "fragment" language) and which do not in any way overlap with perceived prior art. Further, the Examiner is respectfully requested to comment on the above-described policy. Also, Applicants wish to assert that the amended claims cover functional equivalents of the recited sequences (i.e., SEQ ID NO:8 and SEQ ID NO:10).

In conclusion, it is believed that the Section 112, first paragraph rejection of claims 1, 2 and 5-9 has been overcome and should be withdrawn accordingly.

The claimed subject matter is fully enabled by the specification.

Rejection of Claims 12 and 13 Under 35 U.S.C. 112, Second Paragraph

The Examiner has rejected claims 12 and 13 under Section 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In response, it is submitted that the Examiner's concerns, giving rise to the rejection, have been adequately addressed by the amendments noted above. Thus, it is submitted that the rejection has been overcome and should be withdrawn accordingly.

Rejection of Claims 1, 2 and 5-7 Under 35 U.S.C. 102(b)

The Examiner has rejected claims 1, 2 and 5-7 under Section 102(b) as being anticipated by Metz et al. (US2002/0194641).

In particular, the Examiner asserts that Metz et al. disclose in SEQ ID NO:2 and 1 the amino acid sequence of and a polynucleotide sequence encoding a polyunsaturated fatty-acid polyketide synthase wherein numerous fragments of the amino acid sequence and encoding nucleic acid sequence meeting the limitations of claims 1 and 2 of the presently claimed invention. Further, the Examiner contends that the disclosure of Metz et al. meets the limitations of claims 5-7 because Metz et al. disclose that their SEQ ID NO:1 encodes a functionally active polyketide synthase capable of producing eicosapentaenoic acid or docosahexaenoic acid when expressed in a host cell.

In response, Applicants respectfully traverse the rejection. More specifically, Applicants submit that Metz et al. disclose polyunsaturated fatty acid polyketide synthase systems from microorganisms, including eukaryotic organisms. Metz et al., however, do not disclose or suggest the subject matter of the presently claimed invention and, in particular, the claimed sequences; thus, the present invention is certainly not anticipated by Metz et al. In conclusion, it is submitted that the Section 102(b) rejection of claims 1, 2 and 5-7 has been overcome and should be withdrawn accordingly.

Should the Examiner have any questions concerning this matter, he is respectfully requested to contact the undersigned at the telephone number listed below.

It is believed that the case is in condition of allowance, and Notice to that effect is respectfully requested.

Respectfully submitted,
Mukerji, et al.



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